DRYLAND COWPEAS (Caloona) (No-till)
Farm Enterprise Budget Series - North-East NSW
Summer 2012-2013

1. GROSS MARGIN BUDGET:

INCOME:

\[
\begin{array}{c|c|c|c}
\text{Yield} & \text{0.85 tonnes/ha} & \text{0.15 tonnes/ha} \\
\hline
\text{at} & \text{$760.00/tonne (clean seed, ex-store)} & \text{$150.00/tonne (gradings)} \\
\hline
\text{Price} & \text{at} & \text{$646.00} & \text{$22.50} \\
\end{array}
\]

A grading percentage of 15% is assumed, but it will vary according to crop and harvest conditions.

Crop prices were correct at the time of writing (Aug 2012), world market volatility makes estimation of future pricing impractical.

A. TOTAL INCOME $/ha: $668.50

VARIABLE COSTS:

\[
\begin{align*}
\text{Sowing} & \quad \text{\$33.97} \\
\text{Fertiliser & application} & \quad \text{\$45.60} \\
\text{Herbicide & application} & \quad \text{\$112.03} \\
\text{Insecticide & application} & \quad \text{\$25.93} \\
\text{harvesting} & \quad \text{\$76.24} \\
\text{Levies and insurance} & \quad \text{\$35.83} \\
\text{Cartage, grading & bagging} & \quad \text{\$90.00} \\
\end{align*}
\]

B. TOTAL VARIABLE COSTS $/ha: $419.61

C. GROSS MARGIN (A-B) $/ha: $248.89

2. EFFECT OF YIELD AND PRICE ON GROSS MARGIN PER HECTARE:

SENSITIVITY TABLE

\[
\begin{array}{c|c|c|c|c|c|c|c|c}
\text{YIELD t/ha} & \text{1.00} & \text{0.85} & \text{0.80} & \text{0.75} & \text{0.70} & \text{0.65} & \text{0.60} & \text{0.55} & \text{0.50} \\
\hline
\text{Graded & Bagged Price} & \text{\$120/t} & \text{\$135/t} & \text{\$150/t} & \text{\$160/t} & \text{\$170/t} & \text{\$180/t} & \text{\$190/t} & \text{\$200/t} \\
\hline
\text{clean seed} & \text{\$600/t} & \text{\$660/t} & \text{\$760/t} & \text{\$810/t} & \text{\$860/t} & \text{\$910/t} & \text{\$960/t} & \text{\$1010/t} \\
\hline
\text{0.08} & \text{-\$123} & \text{-\$80} & \text{-\$37} & \text{-\$15} & \text{-\$7} & \text{-\$3} & \text{-\$1} & \text{-\$1} \\
\text{0.11} & \text{-\$44} & \text{\$17} & \text{\$77} & \text{\$108} & \text{\$138} & \text{\$168} & \text{\$198} & \text{\$228} \\
\text{0.13} & \text{\$16} & \text{\$90} & \text{\$163} & \text{\$200} & \text{\$237} & \text{\$274} & \text{\$311} & \text{\$348} \\
\text{0.15} & \text{\$76} & \text{\$163} & \text{\$249} & \text{\$292} & \text{\$336} & \text{\$380} & \text{\$424} & \text{\$468} \\
\text{0.19} & \text{\$176} & \text{\$284} & \text{\$392} & \text{\$446} & \text{\$501} & \text{\$555} & \text{\$610} & \text{\$665} \\
\text{0.23} & \text{\$276} & \text{\$405} & \text{\$535} & \text{\$600} & \text{\$665} & \text{\$734} & \text{\$803} & \text{\$872} \\
\text{0.26} & \text{\$355} & \text{\$502} & \text{\$649} & \text{\$723} & \text{\$797} & \text{\$874} & \text{\$951} & \text{\$1028} \\
\text{0.29} & \text{\$435} & \text{\$599} & \text{\$763} & \text{\$846} & \text{\$929} & \text{\$1013} & \text{\$1107} & \text{\$1191} \\
\hline
\text{Gross Margin} & \text{\$36} & \text{\$72} & \text{\$108} & \text{\$144} & \text{\$180} & \text{\$216} & \text{\$252} & \text{\$288} & \text{\$324} \\
\text{($/ha)} & \text{\$113} & \text{\$165} & \text{\$217} & \text{\$269} & \text{\$321} & \text{\$373} & \text{\$425} & \text{\$477} & \text{\$529} \\
\end{array}
\]

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**CALENDAR OF OPERATIONS:**

<table>
<thead>
<tr>
<th>Operation</th>
<th>Month</th>
<th>hrs /ha</th>
<th>$/hour</th>
<th>$/ha</th>
<th>Rate/ha</th>
<th>$</th>
<th>$/ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herbicide - ground spray, 450 g/L g</td>
<td>Jan</td>
<td>0.05</td>
<td>51.87</td>
<td>2.59</td>
<td>1.6 L</td>
<td>4.50</td>
<td>5.40</td>
</tr>
<tr>
<td>Wetter - non-ionic surfactant</td>
<td>Jan</td>
<td>with above</td>
<td>0.2 L</td>
<td>6.72</td>
<td>1.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herbicide - paraquat + diquat</td>
<td>Jan</td>
<td>0.05</td>
<td>51.87</td>
<td>2.59</td>
<td>2.0 L</td>
<td>9.93</td>
<td>19.86</td>
</tr>
<tr>
<td>Herbicide - ground spray, 450 g/L g</td>
<td>Mar</td>
<td>0.05</td>
<td>51.87</td>
<td>2.59</td>
<td>1.2 L</td>
<td>4.50</td>
<td>5.40</td>
</tr>
<tr>
<td>Wetter - non-ionic surfactant</td>
<td>Mar</td>
<td>with above</td>
<td>0.2 L</td>
<td>6.72</td>
<td>1.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herbicide - paraquat</td>
<td>May</td>
<td>0.05</td>
<td>51.87</td>
<td>2.59</td>
<td>1.5 L</td>
<td>5.96</td>
<td>8.94</td>
</tr>
<tr>
<td>Herbicide - ground spray, 450 g/L g</td>
<td>Sep</td>
<td>0.05</td>
<td>51.87</td>
<td>2.59</td>
<td>1.2 L</td>
<td>4.50</td>
<td>5.40</td>
</tr>
<tr>
<td>Wetter - non-ionic surfactant</td>
<td>Sep</td>
<td>with above</td>
<td>0.2 L</td>
<td>6.72</td>
<td>1.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herbicide - ground spray, 450 g/L g</td>
<td>Nov</td>
<td>0.05</td>
<td>51.87</td>
<td>2.59</td>
<td>1.6 L</td>
<td>4.50</td>
<td>5.40</td>
</tr>
<tr>
<td>Wetter - non-ionic surfactant</td>
<td>Nov</td>
<td>with above</td>
<td>0.2 L</td>
<td>6.72</td>
<td>1.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herbicide - paraquat + diquat</td>
<td>Nov</td>
<td>0.05</td>
<td>51.87</td>
<td>2.59</td>
<td>2.0 L</td>
<td>9.93</td>
<td>19.86</td>
</tr>
<tr>
<td>Sowing: Seed + inoculum</td>
<td>Nov</td>
<td>0.20</td>
<td>67.87</td>
<td>13.57</td>
<td>12 kg</td>
<td>1.70</td>
<td>20.40</td>
</tr>
<tr>
<td>Fertiliser - Single super</td>
<td>Nov</td>
<td>with above</td>
<td>80 kg</td>
<td>0.57</td>
<td>45.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herbicide - haloxyfop-R 520 g/L</td>
<td>Jan</td>
<td>0.05</td>
<td>51.87</td>
<td>2.59</td>
<td>0.15 L</td>
<td>57.07</td>
<td>8.56</td>
</tr>
<tr>
<td>Uptake oil</td>
<td>Jan</td>
<td>with above</td>
<td>0.50 L</td>
<td>6.97</td>
<td>3.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crop insurance **</td>
<td>Jan</td>
<td>4.34%</td>
<td></td>
<td></td>
<td></td>
<td>29.01</td>
<td></td>
</tr>
<tr>
<td>Insecticide - methomyl 225 g/L</td>
<td>Mar</td>
<td>0.05</td>
<td>51.87</td>
<td>2.59</td>
<td>1.5 L</td>
<td>15.56</td>
<td>23.34</td>
</tr>
<tr>
<td>harvest</td>
<td>Mar</td>
<td>contract</td>
<td>76.24 per ha incl fuel</td>
<td>76.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grains Research Levy</td>
<td>May</td>
<td>contract</td>
<td>1.0% of farm gate value</td>
<td>6.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grading &amp; bagging</td>
<td>May</td>
<td>contract</td>
<td>$90 /t</td>
<td>90.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**AGRONOMIC NOTES:**

**Insects:** Closely monitor crops for thrips, mirids (particularly at budding and flowering), heliothins and green vegetable bug.

**Weeds:** To reduce the likelihood of herbicide resistance, rotate herbicide groups and weed management techniques. Ensure weed escapes are controlled before they can set seed.

**Sowing:** Can be sown by direct drill into cereal stubble. Banjo (black-eye) cowpeas should only be grown under very favourable dryland conditions, they are a larger seed than Caloona so seed rate 25-40 kg/ha. Seed price used includes inoculant, ensure cowpeas are well inoculated to ensure nitrogen fixation.

**Fertiliser:** Fertiliser requirements should be based on paddock records and soil tests.

**Soil:** Best suited to sandy and loam soils.

**Price:** Accurate price prediction is difficult as price can vary greatly with supply and demand. The price indicated is delivered ex-store on a clean seed basis (i.e. you will need to add cartage). Price will vary with the variety grown and grade achieved.

**Insurance:** ** Varies with local government area and postcode, check with your insurer.

*For further information, refer to the NSW DPI Agfact "Cowpea, lab lab and pigeon pea" P4.2.21*

*Use of a particular brand name does NOT imply recommendation of that brand by NSW DPI.*

*Always read chemical labels and follow directions, as it is your legal responsibility to do so.*

**harvest:** harvest management is crucial to ensure a high quality, high proportion clean seed yield.

Grading losses may vary substantially and depend upon harvesting management.

**LABOUR REQUIREMENTS:** - labour is not costed in this budget. If labour costs $21.70 /hr, total labour cost would be $16.28, reducing the gross margin to $233 /ha.

**MACHINERY ASSUMPTIONS:**

Tractor: 130-140 KW PTO (173-180 HP)

Machinery costs refer to variable costs of: fuel, oil, filters, tyres, batteries and repairs.

You may need to add overhead costs as well, please refer to the Tractor and Implement Costs Guide

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